Invited Papers Session 03

[Organizer]
Prof. Haruo Kobayashi
Professor, Gunma University (Japan)

[Title] Analog/Power Supply Circuits and Their Related Technology

[Abstract]
This session is involved in analog/power supply circuits, which are key technologies for Internet-of-Things (IoT) and green environment. It covers wide range from fundamental theory to industry application, and also from basics to the state-of-the-art.

April 18, 2018

Session 1: 13:00-14:55

13:00-13:30 (Keynote) You Yin, Ryoya Satoh and Keita Sawao
Properties of N-doped Sb$_2$Te$_3$ Film and Its Application to Artificial Intelligence Synaptic Device

Low Switching Loss and Scalable 20-40 V LDMOS Transistors with Low Specific On-Resistance

13:50-14:10 (Invited) Yosuke IIJIMA, Keigo Taya and Yasushi YUMINAKA
Optimization of waveform shaping for multi-valued signaling by using variation evaluation of received signals

14:10-14:25 (Student) Nene Kushita, Jun-ya Kojima, Masahiro Murakami and Haruo Kobayashi
Linearity Improvement Algorithms of Multi-bit ΔΣ DA Converter – Combination of Unit Cell Re-ordering and DWA
14:25-14:40 (Student) Yi Xiong, Koyo Asaishi, Natsuko Miki, Yifei Sun, Nobukazu Tsukiji, Yasunori Kobori, Haruo Kobayashi
Multi-Phase Clock-less Switching Converter with EMI Noise Reduction

14:40-14:55 (Student) Yifei Sun, Yi Xiong, Yasunori Kobori and Haruo Kobayashi
Pulse Coding Controlled Switching Converter with Generating Automatic Frequency Tracking Notch Characteristics for Radio Receiver

Break

Session 2: 15:30-17:10

15:30-15:50 (Invited) Yasunori Kobori, Natsuko Miki, Yifei Sun, Nobukazu Tsukiji and Haruo Kobayashi
Output Voltage Ripple Correction with Spread Spectrum Using Frequency Modulation for Switching Converters

15:50-16:10 (Invited) Anna Kuwana, Tetuya Kawamura
Numerical Simulation and Its Possibility of Application to Green Environment

16:10-16:25 (Student) Yukiko Shibasaki, Koji Asami, Anna Kuwana, Yuanyang Du, Akemi Hatta, Kazuyoshi Kubo and Haruo Kobayashi
Study on Multi-Tone Signals for Design and Testing of Linear Circuits and Systems

16:25-16:40 (Student) Noriyuki Oiwa, Shotaro Sakurai, Nobukazu Tsukiji, Yasunori Kobori, Haruo Kobayashi
A Study on EMI Noise Reduction in Boost-Type PFC Circuit

16:40-17:10 (Keynote) Haruo Kobayashi,
Analog / Mixed-Signal IC Design and Testing Based on Mathematics